

W5YI

National Volunteer Examiner Coordinator

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

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FCC Adopts Revised §Part 97 Rules!

The FCC Commissioners approved the new §Part 97 Rules just before the ARRL's "75th Diamond Jubilee" National Convention held June 2-4 here in the Dallas area. FCC's **Bob McNamara** (Chief, Special Services Division) and **Johnny Johnston/W3BE** (Chief, Personal Radio Branch) were on hand at the standing-room-only FCC Forum to discuss the new rules with the amateur community. It was the first hamfest that Bob has attended. Their presentations pretty much followed the press release which was available at the door.

Because technological advances and operational changes have made the current Amateur Radio Service rules difficult to apply to modern amateur radio communications, the Commission reorganized §Part 97 of its rules to create a regulatory environment designed to encourage modern techniques, technology and uses of amateur radio.

Specifically, the FCC revised and reorganized §Part 97 in order to make the amateur service rules easier to understand ...and to provide a foundation upon which future advancements in communications can be incorporated into the amateur service. The Commission also deleted many unnecessary, obsolete and redundant rule provisions.

The hoped-for 40% reduction in the size of §Part 97 actually ended up being only a 25% saving as the FCC went back to the drawing board and confronted the many issues dealt with by nearly two hundred commenters. Practically every section had to be re-addressed and revised.

Prior to this complete overhaul, §Part 97 had not undergone a major restructuring since 1951 when most communications systems in the service were using high-frequency, hand-keyed telegraphy and amplitude modulated telephony. Since then, a number of emerging technologies, such as single-sideband and frequency modulated telephony, VHF/UHF repeaters, radioteleprinting, satellite transponders, digital communications, television, etc., have become popular with amateur operators. While rules have been modified or added to accommodate these technologies, the result has been a "patchwork quilt" of rules surrounding an antiquated structure that is often confusing ...particularly to a prospective licensee.

§Part 97 has now been restructured into a format consisting of six subparts and two appendices. These are:

Subpart A: *General Provisions*, which contains those rules concerned with license and station location requirements.

Subpart B: *Station Operation Standards*, which is comprised of those standards that apply to all types of amateur station operation;

Subpart C: *Special Operations*, contains the requirements that apply to non-standard operations such as beacons, repeaters, auxiliary operation, remote control of amateur stations and model craft and AMSAT, the amateur-satellite service;

Subpart D: *Technical Standards*; containing the remaining technical principles;

Subpart E: *Providing Emergency Communications*, which contains the rules applicable to

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operations in distress and disaster situations, along with RACES ...the radio amateur civil emergency service; and...

Subpart F: Qualifying Examination Systems which contains the requirements for the preparation, administration and coordinations of amateur radio operator examinations, i.e. the Novice and VEC testing programs.

Appendix 1 names the geographic areas where the amateur service is regulated by the FCC, and;

Appendix 2 lists volunteer-examiner coordinator regions.

Subpart E, *Providing Emergency Communications* - a new subpart, was not originally specified in the NPRM. Dropped was the subpart entitled: "Fundamental Purposes of the Amateur Service" which was incorporated elsewhere.

The new rules combine the rules which pertain to an amateur station providing emergency communications with the rules that govern RACES stations. They do not, however, change the basic principles of purpose of the amateur service in the United States.

The FCC's "quiet hours" NPRM proposal to simply grant the FCC authority to restrict amateur operations to prevent harmful interference without further stipulations *by far* drew the most opposition and comments from the amateur community.

The Commission decided to keep the current "quiet hours" rule which imposes restrictions, as necessary, on the operation of amateur service stations to eliminate interference to home entertainment equipment. The FCC had *initially* proposed to:

- (1.) ...remove certain specific time periods for the imposition of restrictions against amateur station transmissions;
- (2.) ...remove the criteria that consumer receivers must be "of good engineering design including adequate selectivity characteristics" and;
- (3.) ...remove the §97.131 requirement that the alleged interference be investigated by the Commission.

The general prohibition against amateur stations transmitting communications as an alternative to other authorized radio services has been clarified to permit emergency communications to be provided. The new rules also permit the use of amateur stations to provide communications that relate to the public's safe observation and participation in

parades, marathons, or similar public events, if the principal beneficiary of such communications is the public and any benefit to the event's sponsor is incidental.

Communications relating to the buying and selling of amateur station apparatus -- so called "swap nets" -- is also permitted as an exception to the general prohibition against business communications. The exception expressly forbids such messages by those seeking to profit from such sales or purchases on a regular basis. Another exemption is for communications that assist journalists in filing reports. Such reports, however, must not detract from the efforts of other stations that are actually engaged in providing emergency communications.

With respect to operator license examinations, the Commission included in the rules their policy that a Morse code receiving test alone is adequate proof of both sending and receiving ability. The FCC confirmed that knowledge of all telegraphy characters is basic to sending and receiving texts correctly; therefore the Morse code test message still must contain all alphabet letters, numerals and specified punctuation and operating prosigns. Test messages may, however, be transmitted for a *minimum* duration of five minutes rather than exactly five minutes as presently specified in §97.29(c).

The new rules specify the number of questions that must be answered correctly on each written examination, rather than a percentage of correct answers. Administering volunteer examiners (VE's) now have the authorization to require expert verification that an examinee with a physical disability requires a reader or transcriber, other than the one of the administering VE's. By another rule change, a volunteer-examiner coordinator is not limited to designated regions in the United States. All VEC's may now coordinate examination sessions in every testing region, i.e. every VEC is thus a National VEC.

The new §Part 97 rules retain the "Definitions" section. Some terms used in the amateur service rules have been shortened and simplified ...for example, "beacon," "repeater," "earth station" and "space station." The Commission also included an exception to the prohibition on international third party communications. The exception states that the prohibition does not apply to a message for any third party who is eligible to be a control operator of the station. Traffic may now be sent

1 Each \$1.00
10 or more (Qty.) \$1.00
F. paid
\$1.00 postpaid

QUESTION POOLS
1 Nov. 1 Ele. 12
Technician - Elements(A)

NEW

AMATEUR RADIO QUESTION POOLS
Her I
New Report
Multiple
Solutions

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to amateur operators in countries where third party communications are not permitted.

Another exception applying to the time limitation for a RACES drill has been incorporated into the new Part 97 where an emergency planning official has specifically approved the drill or test. The good amateur practice requirement has been consolidated with the requirements concerning frequency selection, frequency sharing, and malicious interference. Also, under the new rules, a representative of a foreign government is not barred from holding a reciprocal permit.

With respect to repeaters, the new rules deleted the requirement that operation be discontinued within five seconds after cessation of radiocommunications by the user station. Also deleted was the restriction that a repeater cannot transmit on more than one channel from the same location.

Additionally, the Commission clarified the permissible emission types to be used by amateurs ...new easy-to-understand designators being adopted. Included or clarified were many other policies concerning amateurs that have evolved over the years as interpretations of existing rules. For example, it included the existing policy concerning state and local regulations governing the height and placement of amateur antenna structures.

A major change is the inclusion of PRB-1 in §Part 97. PRB-1 is the September 1985 federal preemptive declaratory ruling which holds that state and local regulation of an amateur station antenna structure must reasonably accommodate those communications ...and must constitute the minimum practicable regulation to accomplish the state or local authority's legitimate purpose.

The complete text of §Part 97 rewrite is not yet available. It is currently in the process of being typeset ...and will be officially released through the Department of Commerce - probably in about two weeks. This report has been completed based on information obtained from the Commission's press release and other information discussed at the FCC Forum at the ARRL National Convention last week. The new §Part 97 becomes effective September 1, 1989.

It is estimated that about twenty-percent of the questions on Rules contained in the present amateur radio license examination question pools

will have to be changed. All VEC's will be meeting in Gettysburg, Pennsylvania, on July 7th. §Part 97 rule changes and replacement questions will be covered at that time. More on this issue later.

SPECIAL CALL SIGN SYSTEM VETOED!

Also announced at the FCC Forum last week was the Commission decision not to initiate a special amateur radio call sign system administered in the private sector.

The FCC had received a June 17, 1986, letter from the American Radio Relay League expressing an interest in finding a way by which requests for specific call signs for amateur stations could be honored through a system administered in the private sector.

In response to that letter ...and to numerous other requests from the amateur community, the Commission issued a Public Notice (PRB-3) on February 3, 1987, requesting comments and proposals to determine whether an amateur radio call sign system administered by a *Special Call Sign Coordinator* (SCSC) from the private sector could be implemented without additional costs to the FCC.

The Commission also proposed to completely scrap its present (circa 1978) amateur call sign assignment system whereby amateurs qualify for shorter - and presumably more desirable - call sign formats by upgrading ...or a different call sign (in the same format) when an amateur changes their mailing address to a different call sign region. All new call signs, regardless of the licensee's operator class was to have been systematically assigned with a 2X3 format from only the NA-NZ prefix block. That block had the capability to provide over 4.5 million call signs.

The Commission proposed that the actual amateur station licensing function, including the assignment of an "official" [primary] call sign, would continue to be performed by the FCC, consistent with its statutory licensing responsibility. At the request of an individual licensee, however, an SCSC would then assign one or more supplemental "special" [secondary] call signs to an authorized station. An administrative cost would be collected by the SCSC for the issuance and maintenance of these call signs. These special call signs could then be used in lieu of the Commission-assigned call signs during the station identification procedure. The

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SCSC would then be required to have an "on-line" computer access system whereby the FCC would be able to relate the secondary call signs to an amateur's primarily issued call sign for monitoring and compliance work. Thirteen groups, including the Callbook, Buckmaster Publishing, Forest Industries, the ARRL and the Central Alabama and W5YI-VEC's, did apply to become the *Special Call Sign Coordinator*.

The ARRL was granted a comment time extension ...from April to July 1987. Meeting in Atlanta on July 9-10, League Directors supported the issuance of specific call signs to amateurs but (*completely reversing their June 17, 1986 letter*) felt this should be a government - rather than a private sector function. The Director's did, however, vote to submit a contingency proposal to be the SCSC providing that no other organization shared the duty with the League ...and providing the cost of the program was totally recoverable. The ARRL made it clear that it did not wish to participate in another program (such as the VEC System) where other groups cooperate in accomplishing a common goal.

The FCC staff completed their recommendations on the matter in early 1988 and the issue remained before the Commissioners for more than a year. They finally ruled on May 31. The fact that the League was reluctant to be the SCSC probably killed the matter. The official release gave a different reason, however. "After carefully considering the comments, the Commission finally concluded that a special call sign program -- even one administered in the private sector -- would require the diversion of significant resources that are essential to the timely and efficient processing of applications for new and upgraded amateur licenses. Under these circumstances, the FCC concluded that a special call sign system is not in the public interest. Accordingly, it terminated the proceeding."

PIRATE BROADCASTER SHUT DOWN!

An unlicensed and illegal radio station broadcasting from the Miami, Florida, area was located and shut down May 23rd. FCC engineers and U.S. Marshals seized the radio station identified as "La Voz de Alpha 66" transmitting on 6666.6 kilohertz in Spanish. The programming appeared to be directed towards Cuba. A complaint was registered with the U.S. State Department from Cuba.

The transmitter, operated by Diego Medina,

was located in a motor vehicle and, as such, the station had been able to regularly change its transmitting location. Medina had previously identified himself as the Secretary of a group known as *Alpha 66 Organizacion Revolucionaria Cubana*. This organization had been fined in 1982 and 1983 for earlier unlicensed operations. About five months ago, FCC monitors picked them up again.

The frequency they were broadcasting on is allocated to the aeronautical service to transmit information enroute related to the safe, economical and efficient operation of their aircraft. The FCC said a potential for serious interference existed in that the unauthorized signal could be heard over large portions of the United States.

CANADIAN NO-CODE ENTRY LEVEL

Good progress is being made toward restructuring the Amateur Service in Canada. The *Department of Communications* (the government regulatory agency in Canada) and their two ham organizations, CARF and CRRL met in Ottawa on May 27th to agree on a restructuring timetable.

A wallet-sized certificate (license) will be issued for up to four levels of qualification. There are two theory ...and two code requirements ...namely: Basic (Theory) Qualification; Morse Code (5 wpm) Qualification; Morse Code (12 wpm) Qualification and an Advanced (Theory) Qualification. Every amateur must have at least the Basic (beginning theory) Qualification to get a license.

There are currently three license classes in Canada, Amateur, Advanced and Digital. The Digital Certificate, while not requiring Morse code proficiency, does require passing a very difficult technical examination. Amateurs presently holding the Advanced and Amateur Certificates will be deemed under the new regulations to have Basic, Morse Code (12 wpm) and Advanced Qualifications, while those holding the Digital Certificate will be credited only with the Basic and Advanced elements.

Amateurs that qualify for the Basic Certificate will be allowed to operate on all ham bands above 30 MHz using all emissions with up to a 250 watt power level. Canadian Basic amateurs may also construct home built transmitters ...but only from approved kits.

Basic amateurs with additional 5 word-per-

WOULD YOU LIKE TO BECOME A VOLUNTEER EXAMINER?

"I am a currently licensed Extra Class amateur radio operator and I wish to be a volunteer examiner"
"I am a currently licensed Extra Class amateur radio operator and I do not own a significant operator license revoked or suspended."

I am a currently licensed Extra Class amateur radio operator and I wish to be a volunteer examiner"
"I am a currently licensed Extra Class amateur radio operator and I do not own a significant operator license revoked or suspended."

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minute Morse Code proficiency may operate with all modes/emissions below 4 MHz ...passing the 12 wpm telegraphy exam yields the additional ham bands between 4 and 30 MHz.

Those with the Advanced (theory) qualification will be permitted to radiate with a 1 KW maximum power input, sponsor repeater and club stations, operate remote control fixed stations ...and completely design and home-brew transmitting equipment.

Canadian amateurs are cooperating to provide the technical question and answer examination pools, while the DOC (Canadian government) is preparing the "Regulation Bank." September 1 has been targeted as the date for the joint CRRL/CARF committee to have the technical questions ready ...which the DOC will approve November 1st. A Notice in the *Canada Gazette* (similar to our *Federal Register*) will ask for public comment on December 1, 1989. The new approved regulations are scheduled to be published in the *Gazette* on March 1, 1990, with the amateur service restructuring taking effect on September 1, 1990.

- The situation on the twenty meter 14.313 is strange to say the least. That is the frequency of the **Maritime Mobile Service Net** (MMSN). Started by a Chaplain to assist mariners at sea, the long running amateur radio network has been in existence more than twenty years. **Glenn Baxter/K1MAN**, who also heads up the **International Amateur Radio Network**, maintains that founder Chaplain Robertson/KB5YX appointed him as a MMSN net control station. A new Board has now reportedly taken over the Maritime Mobile Net and Baxter was ordered off of 14.313 during his regular net hour. The Board contends he is a poor net control station and is "controversial." K1MAN has now formed a new network on the same frequency, **The 14.313 Service Net**, which officially began operation on May 15, 1989. Baxter plans to be the Acting Net Manager until the 1990 Dayton Hamvention when a permanent Net Manager will be elected. He said he intends to restore order and democracy to 14.313 and has distributed the 14.313 Service Net By-Laws to the Amateur Radio media.

U.S. PROPOSES HAM GEAR SANCTIONS

The Office of the U.S. Trade Representative (USTR), the federal agency charged with overseeing the *Omnibus Trade and Competitiveness Act of*

1988, has determined that Japan is not in compliance with their agreements on telecommunications trade. It could have far reaching implications for the consumer electronics market ...especially SWL, Citizen's Band and amateur radio equipment.

The USTR is authorized to impose duties, fees or other import restrictions on the goods of a foreign country in response to violations of trade agreements. The Government of Japan is committed to a number of steps to open the Japanese telecommunications products and services market to other countries. Japan undertook these commitments to deregulate its telecommunications market beginning in 1985.

A U.S. interagency team consulted with Japan in mid-April and as a result of that review determined that Japan is effectively denying U.S. companies access to the flourishing Japanese cellular telephone market. The USTR charges that the Japanese Ministry of Posts and Telecommunications discriminates against U.S. companies by imposing cellular licensing, operating and marketing restrictions that do not apply to Japanese companies.

For example U.S. firms have more burdensome licensing and frequency assignment procedures ...and must pre-sign customers before they can build and operate a new cellular telephone system. Japanese companies may first construct their system ...and then begin the marketing phase. Certain Japanese cities (such as Tokyo and Nagoya) arbitrarily prohibit U.S. equipment from "roaming" (operating out of their assigned area) while allowing Japanese systems to freely "roam." The USTR considers these violations very serious ...and has proposed to retaliate strongly.

Last month the USTR published the allegations in the *Federal Register* (May 8, Vol. 54 No. 87, Page 19624). A Public Hearing was held May 24 at the U.S. Trade Commission. It has been decided that certain product lines will be considered for substantially increased duties or other import restrictions to strike back against Japan. The hit list includes telephone answering machines, regular and cordless telephones, microphones, speakers, headphones, teleprinters, tape recorders ...and a host of other electronic consumer goods. Also included in the list of sanctioned articles are "reception apparatus for radio telephony, radio telegraphy or radio broadcasting, ...Citizen's Band transceivers, low power radiotelephonic transceivers operating in the

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49 MHz band, Marine VHF-FM transceivers, hand-held and other transceivers for frequencies exceeding 400 MHz.

The duty charged on 70cm (420-450 MHz) amateur radio transceivers is currently 6%. The USTR is proposing a *100% import tariff* ...effectively doubling the price of ham gear operating in the 420-450 MHz, 902-928 MHz, 1240-1300 MHz band and others higher in frequency. There are no domestic manufacturers of these products. The only manufacturers of this equipment are Japanese ...Kenwood, ICOM, Marantz ("Standard" brand), Uniden, Alinco and Yaesu among them. The Heath Company imports amateur transceiver kits for the amateur do-it-yourself market from Japan. All would be seriously affected if the Office of the U.S. Trade Representative proceeds with their announced sanctions.

Fearing a "pricing disaster," the Heath Company has filed a written submission in opposition to the increase. Their argument is that Amateur Radio operators are licensed by the FCC to serve in times of public need or disaster to supply routine and emergency communications. Hams are private individuals responsible for the purchase of their own equipment and should not be involved in commercial retaliation. Through their Washington, D.C. attorney, Heath has asked the USTR to only impose increased duties on transceivers which transmit at frequencies exceeding 450 MHz and which are not designed for use by amateur radio operators.

- The FCC has voted (2-1) to again require cable operators to offer customers A/B switches to enable them to switch between off-air Broadcast and Cable television reception. (We think they should be called B/C rather than A/B switches.) Cable operators will be required to notify their customers that coaxial selector switches may be needed to pick up local TV stations since they no longer must be carried on cable lineups. The ARRL opposed the FCC's proposed 60 dB isolation standards two years ago and asked for no less than 90 dB of isolation between the cable input connection and the antenna input. The League was concerned that ham operators would be blamed for penetrating poorly designed A/B switches. The new A/B switch regulations go into effect November 1st.

- The FCC's Office of Technology and Engineering will present a free tutorial on the *Future of Personal Mobile Communications* on July 11.

A new-generation 800/900 MHz short-range **mobile cordless telephone service** now in use in Britain ... and the prospects for a similar service in the U.S. will be discussed.

- You'll never be lost in the year 2,000. **Smart cars are on the way!** Navigation and information systems will guide and tell drivers the location of the nearest open service station, hospital ...or where a needed product can be purchased...even where to park the car! Automatic collision avoidance and headway control systems will adjust car speed for vehicle being followed. On-board computers will manage traffic flow ...and determine best routes. Down the road (pun intended), automatic chauffeuring systems will allow a driver to read, work ...even nap. There are approximately fifty mobile navigation systems worldwide ...over 30 in Japan alone! Some use proximity beacons (transmitters along the road that tell the car where it is), radio navigation satellites, Loran-C (position determined by arrival time of signals from land-based transmitters), radio data systems (superimposed digital data on standard FM broadcasts) ...even computerized map matching (comparing vehicle's movements to road patterns of digital maps stored on CD-ROMs.) A single compact disc can store enough data to hold an entire nation's road network!

- Do you remember **Franklin Computer**? They made personal computers in the early 1980's, but severe (IBM clone) competition and legal problems (with Apple) forced them into bankruptcy in 1984! In 1986 they introduced the **Spelling Ace**, a low-price hand-held "calculator" that contained all 80,000 words in Webster's dictionary. The first few letters of a word yields a list of displayed words that begin with those letters. They sold 1.5 million units in two years. Now other firms are cloning them! (Seiko has a 100,000 word spell-checker that offers 220,000 synonymns.) Franklin came up with an entirely new product line consisting of eighteen hand-held electronic reference devices. Their Language Master *actually pronounces* 83,000 words ...Wordmaster is an electronic thesaurus. On June 2nd, Franklin Computer announced the first hand-held electronic bible (\$299) at the *Summer Consumer Electronics Show* which finds biblical passages with unprecedented ease and speed. They also announced that they have been granted a U.S. patent on their propriety search technology used in all of their products. Franklin shipped \$75 million in reference products in the fiscal year just ended. Not bad for a company on the verge of total extinction.

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AMATEUR RADIO CALL SIGNS

...issued as of the first of June 1989:

<u>Radio District</u>	<u>Gp. "A"</u>	<u>Gp. "B"</u>	<u>Gp. "C"</u>	<u>Gp. "D"</u>
	<u>Extra</u>	<u>Advan.</u>	<u>Tech/Gen</u>	<u>Novice</u>
0	WU0D	KF0DF	N0KSI	KB0ESV
1	NW1X	KC1PG	N1GQB	KA1UAO
2	WQ2O	KE2NQ	N2JNE	KB2HZB
3	NV3C	KD3NJ	N3HEE	KA3UUU
4 (*)	AB4OX	KM4TJ	N4VYU	KC4LCG
5 (*)	AA5LY	KG5UV	N5OOJ	KB5JSS
6 (*)	AA6OI	KJ6VH	N6VIG	KC6ECG
7 (*)	AA7AM	KF7UG	N7MXE	KB7HZR
8	WT8H	KE8ZS	N8KWU	KB8HOK
9	WI9O	KE9QP	N9IOJ	KB9CYJ
N. Mariana Is.	AH0H	AH0AE	KH0AM	WH0AAL
Guam	KH2K	AH2CE	KH2DW	WH2AMF
Johnston Is.	AH3B	AH3AC	KH3AB	WH3AAC
Midway Island		AH4AA	KH4AD	WH4AAF
Palmyra/Jarvis	AH5A			
Hawaii	(**) AH6JU	NH6TK		WH6CDN
Kure Island			KH7AA	
Amer. Samoa	AH8C	AH8AD	KH8AH	WH8AY
Wake Wilkes Peale	AH9A	AH9AD	KH9AD	WH9AAH
Alaska	(**) AL7LG	NL7RY		WL7BVA
Virgin Islands	NP2E	KP2BP	NP2DD	WP2AGV
Puerto Rico	(**) KP4QE	WP4VX		WP4IKJ

NOTE: * = All 2-by-1 format call signs have been assigned in the 4th, 5th, 6th and (now the) 7th radio districts. 2-by-2 format call signs from the AA-AL prefix block now being assigned to Extra Class amateurs in these regions. ** = All Group "A" (2-by-1) format call signs have been assigned in Hawaii, Alaska and Puerto Rico. Group "B" (2-by-2) format call signs are assigned to Extra Class when Group "A" run out.

[Source: FCC, Gettysburg, Pennsylvania]

- The FCC Commissioners are set to make a final "reaffirmation" decision of their **220-222 MHz spectrum reallocation** to the Land Mobile Service at 9:30 a.m. on Thursday, June 15th ...too late for our deadline for this Report. The FCC received over 550 Petitions for Reconsideration of their August 4, 1988, action reassigning the lower two megahertz of the 1-1/4 meter band to narrow band business interests ...and 222-225 MHz. to the Amateur Radio Service on a primary basis.

- The Board of the Canadian Amateur Radio League has approved a skeleton plan looking toward the creation of a **single Canadian amateur radio organization**. It will be presented to the Canadian Amateur Radio Federation for consideration.

APRIL AMATEUR LICENSING STATS

	<u>April</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
New Amateurs	2767	2950	2195	2915	
<u>Upgrading:</u>					
Novices	1387	765	1218	1537	
Technicians	446	201	389	508	
Generals	549	274	317	409	
Advanced	332	185	247	254	
Total:	2714	1425	2171	2708	
<u>Renewals:</u>					
Total Renew:	4002	4969	2926	*371	
Novices	297	561	257	*56	
<u>Purged:(*)</u>					
Total Drop:	1755	2053	959	1100	
Novices	1237	1389	579	370	
<u>Census:</u>					
Indiv. Oper.	418917	422933	435435	452919	
Change/Year	+6439	+4016	+12402	+17484	
<u>Indiv. Operators by Class:</u>					
Extra	<u>Advan.</u>	<u>General</u>	<u>Tech.</u>	<u>Novice</u>	<u>Total:</u>
<u>April 1986:</u>					
39405	98237	116947	85022	79306	418917
9.4%	23.5%	27.9%	20.3%	18.9%	100%
<u>April 1987</u>					
41634	97504	114943	86118	82734	422933
9.8%	23.0%	27.2%	20.4%	19.6%	100%
<u>April 1988:</u>					
44819	98403	113623	95810	82780	434983
10.3%	22.6%	26.1%	22.0%	19.0%	100.0%
<u>April 1989:</u>					
48049	100183	114975	106341	83371	452919
10.6%	22.1%	25.4%	23.5%	18.4%	100.0%
Club/					
RACES &		<u>(1986)</u>	<u>(1987)</u>	<u>(1988)</u>	<u>(1989)</u>
Military		2730	2446	2373	2477
Total Active	421647	425379	437808	455396	
% Increase	+1.5%	+.9%	+2.9%	*+4.2%	

- * The U. S. amateur service is **not really expanding at a 4.2% rate**. Again notice the lack of amateur radio license renewals. This is due to the implementation of the ten-year term license in January 1984. There were 15,124 renewals for the first four months of 1988 ...compared with only 2,177 this year. If you adjust for this difference, the U.S. amateur census would be up a scant 1%.

- Jack Althouse, K6NY, of Palomar Engineers (Escondido, California) advises that the **Mexican Radio League (LMRE)** will hold their 51st annual convention in Guadalajara at the Hyatt Regency hotel. He will be there to introduce new products.

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THE WORLD OF EMERGING ELECTRONICS!

• Atari says it will debut a **hand-held PC** for \$399 called **Portfolio** this month. The one pound computer is the size of a VCR cassette and is complete with a regular keyboard. 128K of RAM, expandable to 640K, runs MS-DOS 2.11 with software (word processor, spread sheet, address book, calendar, calculator, etc.) in ROM. Runs for two days on only three AA batteries.

• **High definition television, HDTV**, was very much in evidence at the recent NAB convention in Las Vegas. HDTV is a TV picture that is four times sharper ...and one-third wider than today's best video. Supposedly it will do for the 90's what cable and VCR's did for the 80's. Digital sound quality compares to that of compact disc. One firm showed a theatre sized (20 foot) television picture with a huge (six figure) price tag to match. Sony showed a complete line of HDTV production gear. Many companies showed IDTV (improved definition) sets half way to HDTV. It will probably be two or three years before HDTV gear is widespread, but in-the-home theatres are definitely coming! The worldwide race is on ...with the Japanese leading the pack. NHK, the Japanese Broadcasting System, began developing HDTV more than twenty years ago and had a working system in 1981 with 1,125 scanning lines - more than twice the resolution of conventional U.S. television pictures. Europe with its 1250 line format is not far behind. The Soviets have the highest resolution of all ...1375 lines. The United States lags badly. We can't agree on anything! Most of our 160 million television receivers are made in Japan. A big push is underway here to develop HDTV standards that will allow the U.S. electronics industry to regain lost ground. Roughly twenty HDTV proponents are seeking FCC approval of their broadcast system as a national standard. Decision is still two or three years away. Cable and satellite operators believe they can provide better HDTV than broadcast. Direct broadcast satellites could carve out a portion of the HDTV market before broadcasters come on line. (At least one DBS firm plans to do exactly that.) Economics and politics will play a larger role than technology in the emerging HDTV race. Congress has more HDTV bills than they know what to do with ...all aimed at establishing an American high-definition TV industry. Our direction will be determined by lawyers, not engineers. Estimated time of arrival: HDTV technology will stabilize by 2000; by 2010, nearly half of American homes will be equipped with HDTV sets.

- ...Hertz has rental cars equipped with **cellular phones activated by credit cards**.
- ...**Digital paper** is a thin, flexible film in large rolls. Lasers beams etch data into infrared-sensitive dyes. One reel can store the equivalent of 1600 CD-ROM's!
- ...The New York Stock Exchange is toying with a **hand-held wireless stock transaction** system.
- ...**Write-Top** is a portable computer that reads handwriting! The keyboard is replaced with a glass screen and an electronic pen which supposedly reads even sloppy penmanship! Handwriting is converted to typed text.
- ...A group in Salt Lake City have formed the "**I Vote Corporation**" which computer processes information about candidates for political office. Software compares candidates views to those of the voter and tells you who to vote for!
- ...**SportsPage** is a personal pager that brings scores and game information directly to the fan. Data is supplied by three wire services beamed from Las Vegas.
- ...VISA/MasterCard operated **pay phones come to Moscow**. Telephones are designed to accommodate foreign visitors to the Soviet capital.
- ...Texas Instruments has developed a **holographic image display** which allows computer terminals to show pictures in three dimensions.
- ...Advise from lawyers comes to cable TV shopping! For \$119 (charged to your credit card) you can purchase **LawPlan** - a prepaid legal advice and counselling service.
- ...Another cable TV shopping service **offers viewers stock investments** through brokers not on a commission basis.
- ...**AutoCommand** is a remote controlled car starter to warm your car up before you leave in the morning! A transmitter starts your car and turns on your heater (or any other accessory) from as far away as 400 feet. Car is shut off automatically if you don't arrive within 10 minutes.
- ...**Signamail** notifies home owners when the mail man has left the mail! Closing the mailbox actuates a receiver in the home!
- ...Sony has a **still image video camera** that stores pictures on floppy discs and can be viewed on a TV set.
- ...**SonicDoom** is a hi-tech flea collar that repels insects with a high-frequency pitch.
- ...**Listen Baby** is a sound system for pregnant women so they can listen and talk to their unborn baby! A tiny speaker located in a cummerbund connected to a handheld microphone allows mother to communicate with the fetus!

AMECO LICENSE PREPARATION MANUALS - Contain all Amateur Radio License Preparation Materials. Includes Morse Code, CW, SSB, SSTV, RTTY, HF, VHF/UHF, Satellites, and General Information.

NOVICE AMATEUR RADIO COURSE - Complete with 2 cassette tapes, book, job aids, binders, and test papers.

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ARRL TO FIGHT TO NEW §PART 15 RULES

Charges "...gross lack of consideration for consumers"

The American Radio Relay League is set to lock horns once again with the FCC's Office of Engineering and Technology. The ARRL's General Counsel, **Chris Imlay, N3AKD**, has filed both a strongly worded *Petition for Reconsideration* ...and a *Motion to Stay* implementation of new §Part 15 Rules allowing unlicensed operation of RF devices in the amateur radio bands. The well done and documented submission runs to nearly fifty pages.

The FCC released their rewrite of the §Part 15 Rules on April 18, 1989. RF devices operating under §Part 15 include *unintentional* radiators (such as computers, video/radio products and other appliances and *intentional* low-power transmitters such as cordless phones, garage door openers, security devices, remote control toys ...and the like.

The League argues:

(1.) The FCC ignored engineering data, relied on inaccurate assumptions ...and drew "erroneous conclusions from claimed experience which in fact it does not have." New engineering data was included with the League's *Petition for Reconsideration*.

(2.) The Commission ignored the hundreds of amateur comments discussing the interference potential of §Part 15 devices. Referring to the recent reallocation of two megahertz of the 220-225 MHz band by the same bureau, the League charges: "This is the second time in recent months that the Commission has virtually ignored large volumes of amateur comments in rule making proceedings."

(3.) The FCC should not have permitted new, high-powered §Part 15 devices on amateur bands above 902 MHz.

(4.) The FCC "should have, consistent with the intent of the *Communications Amendments Act of 1982*, required manufacturers of RF-susceptible home electronic equipment to provide RFI resolution information in the owner's or user's manuals for the devices, as well as a contact point for consumer RFI information."

(5.) The FCC should have placed the amateur bands in the list of "*protected*" frequencies. Only certain government and aviation bands were restricted from §Part 15 operation

Since the devices may be produced and sold after June 23, 1989, the League said it is *urgent* that implementation of the new §Part 15 Rules be *immediately* delayed until all administrative and judicial appeals are exhausted. "Absent a stay, manufacturers will produce and sell the devices to consumers, which cannot be retrieved thereafter." The ARRL maintains that the Commission has no findings to counter their technical report which clearly establishes the severe interference potential of any increase in permitted RF emission levels from §Part 15 devices.

The League's primary argument is that the interests of the American consumer have been completely disregarded, in favor of the manufacturer of §Part 15 devices ...since such devices are not subject to protection from interference from licensed radio services. The ARRL contends that the FCC has created a situation whereby electronic products radiating under §Part 15 rules can be rendered useless by the presence of nearby authorized signals

"The Commission relies solely on its rule that §Part 15 devices must accept interference from licensed radio services and must not cause such interference. The consumer cannot be comforted by this *wave of the hand*, however, when his device does not work as the result of interference. The Commission cannot be relied upon to protect the licensed radio operator from interference from §Part 15 devices because it has no resources with which to investigate and resolve these problems."

"The Commission has assigned large numbers of amateurs ...and millions of American consumers an interference burden that they cannot and should not be expected to accept." ..."A stay will prevent damage to the consumer ...and to amateur radio operators until the *Report and Order* can be substantively revised."

[Filed May 25, 1989, with the Office of the Secretary]

MUSICAL CHAIRS AT THE FCC

Hunt for FCC Commissioners nears end...

While the official White House position is that the nominations for the vacant FCC Commissioner seats have not yet been decided, the speculation has progressed from the rumor ...to the "leak from a well-placed source" stage.

It now appears certain that the new FCC Chairman replacing Dennis Patrick will be **Alfred C.**

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Sikes, 49, a former broadcaster and attorney who heads up the Commerce Department's *National Telecommunications and Information Administration*. Patrick had said on April 5th that he would stay on until a successor is named.

The NTIA is the president's advisor on telecommunications matters. A replacement has already been named for Sikes without mentioning what would happen to him. Janice Obuchowski, 37, a previous top legal advisor to ex-FCC Chairman Mark Fowler (who Patrick replaced), will succeed Sikes at the NTIA. She speaks five languages and has a strong background in international ...as well as domestic telecommunications.

The second appointment goes to **Sherrie Marshall**, a 35 year old White House counsel who once served as top aide to Chairman Patrick ...and ill-fated secretary of defense nominee, Texas John Tower. Lawyer Susan Wing, the Reagan choice, will not be nominated. Marshall is a partner in the Washington firm of Wiley, Rein & Felding who represent United Parcel Service in the 220-222 MHz proceeding. Richard Wiley is a previous FCC Chairman. We understand that Marshall was being strongly considered to head up the agency, but her ties to Patrick and Tower did not work in her favor.

Congress is still annoyed with Patrick for his stance on the *Fairness Doctrine* and *First Amendment* freedoms. When Patrick led his colleagues in eliminating the *Fairness Doctrine* requiring a balanced broadcast airing of opposing controversial viewpoints in 1987, Congress refused to cooperate with the FCC and confirm additional commissioners. They have operated short-handed ever since. Patrick strongly denies he was asked to leave the FCC. Bush feels Sikes, who has made it clear he is interested *only* in heading up the FCC, will better sail through the Senate confirmation process.

The third FCC Commissioner appointment will go to black attorney, **Andrew C. Barrett**, a member of the Illinois Commerce Commission and a former NAACP director. Barrett is on record as supporting telephone company entry into the cable business.

Recently Chairman Patrick was offered a \$2,000 a month temporary fellowship at Harvard University which would tide him over until he can line up something more substantial. Patrick also plans to get married this fall to Washington real estate

professional, Paula Grace.

Another FCC appointment could also be in the works. FCC Commissioner Patricia Diaz Dennis' term expires in two weeks. Dennis, a previous National Labor Relations Board lawyer, is waiting to see who the new Chairman will be before she announces her plans to retain her FCC seat.

Before departing the FCC, Patrick has been lobbying Congress hard to increase FCC funding. He is trying to get an additional \$500,000 for this year ...nearly \$2 million for next. He told the lawmakers that unless he obtains the funding, the FCC's licensing and enforcement function will suffer ...and agency employees will have to take a two day unpaid furlough. A hiring freeze is now in effect ...and many FCC staffers have opted for early retirement.

He said *Fiscal Year 1988*'s accomplishments include responding to 50,000 complaints of interference and approximately 400,000 inquiries. The agency resolved 42,883 interference complaints through public service efforts ...and investigated 894 cases of suspected marketing violations. Four vehicles were equipped with state-of-the-art investigative/monitoring systems.

Due to funding shortfalls, however, the FCC will:

- (1.) ...have to curtail their effort for controlling the importation or sale of devices which have the capability to cause interference;
- (2.) ...have to reduce by one-third their educational efforts with spectrum user groups resulting in congestion and interference problems;
- (3.) ...not be able to conduct workshops with manufacturers and/or user groups on methods of avoiding, reducing or eliminating interference;
- (4.) ...have to shut down some of the monitoring watches;
- (5.) ...not be able to purchase vehicles or replace technical equipment which is acutely needed. (Ten percent of the vehicle fleet will be out of service ...over 40% of the equipment is unreliable ...another 30% prone to failure;
- (6.) ...not be able to carry out many important assignments due to limits available for personnel compensation. Only 80% of all tasks can be accomplished in FY 1989.

Legislation has now been introduced into Congress that will meet the FCC's funding needs for the next two years.